

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Ming Lu et al.

Serial No.: Not Known Yet

Group Art Unit: Not Known Yet

Filed: 03/26/2003

Examiner: Not Known Yet

For: **REPAIR OF PHOTOLITHOGRAPHY MASKS BY SUB-WAVELENGTH
ARTIFICIAL GRATING TECHNOLOGY**

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as EXPRESS MAIL LABEL NO. EV 398572768 US addressed to: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

3/25/2004

Date

Chris Lambriodes

Chris Lambriodes

**INFORMATION DISCLOSURE STATEMENT
TRANSMITTAL LETTER**

Dear Sir:

Enclosed herewith is an Information Disclosure Statement pursuant to 37 CFR.
§ 1.56 in connection with the above-identified application, which statement is being filed:

- ☒ [X] Together with the present application.
- ☐ [] Before the first Office Action on the merits or three (3) months from the filing date of this application, whichever occurs last. [37 CFR § 1.97(b)]
- ☐ [] After the first Office Action on the merits, but before a Final Office Action under §1.113 or Notice of Allowance under §1.311, whichever occurs first. [37 CFR § 1.97(c)]
- ☐ [] After a Final Office Action under §1.113 or Notice of Allowance under §1.311, but prior to or with payment of the Issue Fee. [37 CFR § 1.97(d)]

Consistent with Applicant's obligations pursuant to 37 CFR §§1.97 and 1.98, the following requirements have been met:

☒ No separate requirements are needed.

☒ No additional fee is required.

☐ **Fee Under 37 CFR § 1.97(c)**

The fee of \$180.00 for submission of an IDS under § 1.97(c) as set forth in § 1.17(p) accompanies this statement.

☐ **Fee Under 37 CFR § 1.97(d)**

The fee of \$180.00 for submission of an information disclosure statement under § 1.97(d) set forth in § 1.17(p) accompanies this statement.

☐ **Certification Under 37 CFR § 1.97(e)**

- ☐ Each item of information contained in this statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement; or
- ☐ No item of information contained in this statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the statement after making reasonable inquiry, no item of information contained in this statement was known to any individual designated in §1.56(c) more than three months prior to the filing of this statement.

Provision of Copies of References

☒ A copy of each of the non-U.S. patent references listed on the attached Form PTO-1449 is enclosed herewith and forms a part hereof.

☐ Partial Translation is enclosed herewith and form a part hereof.

☐ A copy of the European Search Report from a corresponding or related EPO application is enclosed herewith.

- ☐ A copy of the International Search Report from a corresponding or related PCT application is enclosed herewith.

Identification of Prior Application(s) In Which Listed Information Was Already Cited And For Which No Copies Are Submitted Or Need Be Submitted

- ☐ This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior U.S. Application No(s). . The following references were submitted to, and/or cited by, the Office in the prior application(s) and therefore are not required to be provided in this application:
- ☒ The Commissioner is hereby authorized to charge any fees associated with this communication or credit any overpayment to Deposit Account No. 04-1679. A duplicate copy of this transmittal is attached.

Respectfully submitted,

DATE: 3/26/04

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet	1	of	5
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Complete if Known

Application Number	Not Known Yet
Filing Date	03/26/2004
First Named Inventor	Ming Lu
Art Unit	Not Known Yet
Examiner Name	Not Known Yet
Attorney Docket Number	N1085-00222

U. S. PATENT DOCUMENTS

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (If known)			
	AA	US- 4,340,654	07-20-1982	Campi	
	AB	US- 4,609,556	09-02-1986	Goedert	
	AC	US- 4,778,693	10-18-1988	Drozdowicz et al.	
	AD	US- 4,906,326	03-06-1990	Amemiya et al.	
	AE	US- 4,968,390	11-06-1990	Bard et al.	
	AF	US- 5,018,212	05-21-1991	Manns et al.	
	AG	US- 5,035,787	07-30-1991	Parker et al.	
	AH	US- 5,194,344	03-16-1993	Cathey, Jr. et al.	
	AI	US- 5,194,345	03-16-1993	Rolfson	
	AJ	US- 5,208,125	05-04-1993	Lowrey et al.	
	AK	US- 5,348,826	09-20-1994	Dao et al.	
	AL	US- 5,384,219	01-24-1995	Dao et al.	
	AM	US- 5,405,721	04-11-1995	Pierrat	
	AN	US- 5,429,730	07-04-1995	Nakamura et al.	
	AO	US- 5,440,426	08-08-1995	Sandstrom	
	AP	US- 5,460,908	10-24-1995	Reinberg	
	AQ	US- 5,569,392	10-29-1996	Miyoshi et al.	
	AR	US- 5,582,939	12-10-1996	Pierrat	
	AS	US- 5,615,954	04-01-1997	Nishizawa et al.	

FOREIGN PATENT DOCUMENTS

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Examiner Signature		Date Considered	
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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Sheet **2** of **5****Complete if Known**

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		Number-Kind Code ² (if known)			
	AT	US- 5,618,760	04-08-1997	Soh et al.	
	AU	US- 5,623,365	04-22-1997	Kuba	
	AV	US- 5,667,919	09-16-1997	Tu et al.	
	AW	US- 5,786,114	07-28-1998	Hashimoto	
	AX	US- 5,795,685	08-18-1998	Liebmann et al.	
	AY	US- 5,798,193	08-25-1998	Pierrat et al.	
	AZ	US- 5,853,923	12-29-1998	Tzu	
	BA	US- 5,881,125	03-09-1999	Dao	
	BB	US- 5,948,468	09-07-1999	Sweatt et al.	
	BC	US- 5,955,222	09-21-1999	Hibbs et al.	
	BD	US- 5,959,325	09-28-1999	Adair et al.	
	BE	US- 5,965,303	10-12-1999	Huang	
	BF	US- 6,030,731	02-29-2000	Yang	
	BG	US- 6,037,087	03-14-2000	Pierrat et al.	
	BH	US- 6,042,738	03-28-2000	Casey, Jr. et al.	
	BI	US- 6,096,459	08-1-2000	Yang	
	BJ	US- 6,103,430	08-15-2000	Yang	
	BK	US- 6,106,980	08-22-2000	Pierrat et al.	
	BL	US- 6,114,073	09-05-2000	Yang	

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		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				

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		Number-Kind Code ² (if known)			
	BM	US- 6,197,455	03-06-2001	Yedur et al.	
	BN	US- 6,262,791	07-17-2001	Powell	
	BO	US- 6,277,526	08-21-2001	Yang	
	BP	US- 6,291,115	09-18-2001	Yang	
	BQ	US- 6,292,297	09-18-2001	Danziger et al.	
	BR	US- 6,304,316	10-16-2001	Jain et al.	
	BS	US- 6,322,935	11-27-2001	Smith	
	BT	US- 6,335,129	01-01-2002	Asano et al.	
	BU	US- 6,346,352	02-12-2002	Hayden et al.	
	BV	US- 6,361,904	03-26-2002	Chiu	
	BW	US- 6,366,404	04-02-2002	Hiraiwa et al.	
	BX	US- 6,369,948	04-09-2002	Danziger et al.	
	BY	US- 6,373,976	04-16-2002	Pierrat et al.	
	BZ	US- 6,391,217	05-21-2002	Schaffer et al.	
	CA	US- 6,440,615	08-27-2002	Shimizu	
	CB	US- 6,447,962	09-10-2002	Yang	
	CC	US- 6,462,874	10-08-2002	Soskind	
	CD	US- 6,480,263	11-12-2002	Smith	
	CE	US- 6,506,525	01-14-2003	Choi et al.	

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Examiner Name	Not Yet Assigned
Attorney Docket Number	N1085-00222

Sheet 5 of 5

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CH	Lalanne, Philippe et al, "The optical properties of artificial media structured at a subwavelength scale", Floating Images Ltd., Hampton, TW12 3JU, United Kingdom	
	CI	Ohlidal, I. et al., "Matrix Formalism For Imperfect Thin Films", Acta Physica Slovaca, Vol. 50, No. 4, Pages 489-500, August 2000	
	CJ	Richter, Ivan et al., "Design considerations of form birefringent microstructures", Applied Optics, Vol. 34, No. 14, Pages 2421-2429, May 10, 1995	

Examiner Signature	Date Considered
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